

Richland Operations Office

Environmental Restoration Contract Environmental Management Performance Report

March 2000

The financial and performance data contained herein are as of January 31, 2000.
Unless otherwise noted, all other information is as of March 1, 2000.

Submitted By: Bechtel Hanford, Inc.



TABLE OF CONTENTS

INTRODUCTION	1
SECTION A – EXECUTIVE SUMMARY	2
NOTABLE ACCOMPLISHMENTS	2
MAJOR COMMITMENTS	2
CRITICAL FEW PERFORMANCE MEASURES (PERFORMANCE INCENTIVES).....	5
SAFETY	6
OVERALL COST/SCHEDULE PERFORMANCE	8
PERFORMANCE RISK MANAGEMENT	8
KEY INTEGRATION ACTIVITIES	11
UPCOMING PLANNED KEY EVENTS	11
SECTION B – PROJECT PERFORMANCE SUMMARY	12
REMEDIAL ACTION AND WASTE DISPOSAL PROJECT.....	12
GROUNDWATER/VADOSE ZONE INTEGRATION PROJECT	13
DECOMMISSIONING PROJECTS	14
SURVEILLANCE/MAINTENANCE AND TRANSITION PROJECTS	14
PROGRAM MANAGEMENT AND SUPPORT.....	15
SCHEDULE VARIANCE ANALYSIS	16
COST VARIANCE ANALYSIS	17
INTEGRATION WITH OTHER DOE HANFORD CONTRACTORS	19

INTRODUCTION

The monthly Environmental Restoration Contract (ERC) Environmental Management Performance Report consists of two sections: Section A - Executive Summary, and Section B - Project Performance Summary.

Section A provides an executive level summary of Bechtel Hanford, Inc.'s (BHI) performance information for the current reporting month and is intended to bring to Management's attention that information considered to be most noteworthy. The Executive Summary begins with a description of notable accomplishments that are considered to have made the greatest contribution toward safe, timely, and cost-effective cleanup. Following the accomplishments are summaries of major commitments that encompass *Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement)* milestones, along with waste sites, assessments, facility completions, and tonnage status. Performance indicator status and safety statistics are also addressed. Fiscal year-to-date ERC Project cost and schedule variance analysis is summarized. Performance risk management information identifies major project issues that may be challenges in achieving cleanup progress. Opportunities are also identified that may assist in these challenges by using newly proven technologies. The Key Integration Activities section highlights site activities that cross contractor boundaries and demonstrate the shared value of working as a team to accomplish the work. The Executive Summary ends with a listing of major upcoming planned key events within a 90-day period.

Section B is a brief summary of the current month's activities for each of the ERC Projects. The five ERC subprojects consist of the Remedial Action and Waste Disposal Project, Groundwater/Vadose Zone (GW/VZ) Integration Project (Integration Project), Decommissioning Projects, Surveillance/Maintenance and Transition (SM&T) Projects, and the Program Management and Support (PM&S) Project. Further cost and schedule variance analysis is summarized for those Project Baseline Summaries (PBS) that are out of the standard thresholds.

SECTION A – EXECUTIVE SUMMARY

NOTABLE ACCOMPLISHMENTS

Backfill activities commenced at the 11 small sites (Group 3) in the 100 B/C Area on January 24.

Mobilization activities for backfilling the high-priority, near-river (Group 1) waste sites in the 100 D Area were initiated.

Mobilization activities were initiated for remediating the 100 N waste sites.

An Expert Panel meeting was held on January 26-28 to review the GW/VZ Integration Project's progress. Topics discussed included system assessment capability (SAC), vadose zone and groundwater modeling, science and technology (S&T) and subsurface investigations.

The In Situ REDOX Manipulation (ISRM) Project well drilling contract was awarded in January. The ISRM technology involves injecting a chemical-reducing agent into an aquifer to prevent chromium-contaminated groundwater from reaching the Columbia River.

All five groundwater pump and treat systems operated at or above the planned 90% availability levels through February.

The loadout hood dismantlement and decontamination workscope was completed at the 233-S Plutonium Concentration Facility in January.

Development of the Engineering Evaluation/Cost Analysis (EE/CA) documents was initiated for the D and H Reactors. Preparation of the Auditable Safety Analysis (ASA) document was also initiated for D Reactor. These documents are required prior to starting demolition activities for the D and H Reactors.

As of January, ERC had exceeded the fiscal year 2000 (FY00) Small Business socioeconomic contractual goals.

Three *Tri-Party Agreement* milestones received regulator approval to be extended.

Six *Tri-Party Agreement* milestones were completed, all ahead of schedule (RCRA groundwater well installations).

MAJOR COMMITMENTS

Tri-Party Agreement Milestones

Eleven *Tri-Party Agreement* milestones have been completed through February, all ahead of schedule.

Section A – Executive Summary

Three remediation *Tri-Party Agreement* milestones received regulator approval for extension due to continued discovery of contamination plumes in the 100 DR and 100 H Areas. Regulator approval was received on February 8.

- A formal *Tri-Party Agreement* change package for M-16-07B, Complete Remediation and Backfill of 22 Sites at 100-DR, extended the completion date from April 30, 2000 to July 31, 2001.
- A formal *Tri-Party Agreement* change package for M-16-13A, Initiate Remedial Action in the 100-FR-1 Operable Unit, extended the completion date from January 31, 2000 to September 29, 2000.
- A formal *Tri-Party Agreement* change package for M-16-26C, Complete Remediation and Backfill of 10 Liquid Waste Sites and Pipelines in the 100-HR-1 Operable Unit, extended the completion date from August 31, 2000 to May 30, 2001.

Total <i>Tri-Party Agreement</i> Milestones Due in FY00	16
Total Planned Through February	11
Total Completed Through February	11

Remaining Milestones to be Completed in FY00	5
Forecast Ahead of Schedule	1
Forecast On Schedule	4
Unrecoverable	0

High Visibility Project Milestones

- Transmit Update of the Vadose Zone Science and Technology Roadmap (PBS VZ01) due April 30.

Status: Forecasted to be complete by April 28.

- Complete Installation of the Wells and Initiate Injection of the Barrier for Phase 2 of the In Situ REDOX Manipulation Project (PBS ER08) due September 30.

Status: Forecasted to be complete by September 30.

Other Major Milestones

- Develop and Implement Integrated Safety Management (ISM) due September 30.

Status: On schedule.

Section A – Executive Summary

Performance Measures (Remediation and Facilities)

FY00 waste site excavation performance measures include a total of 41 waste sites. Excavation of four waste sites was completed in January and one in February, for a total of nine waste sites to date in FY00.

Performance Measures	Detailed Work Plan FY00	Current Baseline (Incl. Baseline Changes)	Forecast for FY00	Completed YTD
Waste Sites	24	41	41	9
100 Area Burial Ground Assessments	0	47	47	47 ^a
300-FF-2 Assessments	121	121	121	121 ^a
Facilities	0	4 ^b	4 ^b	3
Tons	389K	600K	600K	270K

^aProposed Plan, Draft A submittal.

^b116-D, 116-DR, 119-DR, and 108-F.

Section A – Executive Summary

CRITICAL FEW PERFORMANCE MEASURES (PERFORMANCE INCENTIVES)

All performance criteria are projected to meet Performance Incentive (PI) requirements. Workscope for the 233-S Plutonium Concentration Facility will be resequenced via a baseline change proposal (BCP) based on an approved Safety Evaluation Report (SER). The EM-30 funding shortfall for the Canyon Disposition Initiative (CDI) will require scope adjustment.

Outcome	Performance Indicator	Status
Restore the River Corridor for Multiple Uses	100/300 Area waste excavation, disposal, and backfill/regrade	Baseline work projected to be completed per PI requirements, 67% of stretch commenced and projected to be completed per PI requirements.
	Reactor ISS and preparation of facilities for decommissioning	Baseline reactor ISS work projected to be completed per PI requirements, KE/KW legacy waste removal behind schedule due to additional regulatory requirements; 20% of stretch work commenced and projected to be completed per PI requirements.
	Manage groundwater plumes per interim RODs	Baseline work projected to be completed per PI requirements, ISRM drilling behind schedule due to late signing of 100-HR-3 ROD amendment; 100% of stretch commenced and projected to be completed per PI requirements.
Transition Central Plateau to Support Long-Term Waste Management	Maintain facilities until D&D	233-S baseline work behind schedule due to process hood USQ recovery and SER. Recovery schedule implemented. FY00 work will be resequenced via BCP, scheduled for submittal by 2/29/00.
		224-B baseline work impacted by inoperable B Plant exhaust system. Project is evaluating facility entry with appropriate PPE to conduct required walkdowns.
		CDI baseline work projected to be completed per PI requirements; EM-30 funding shortfalls will require scope adjustment; no stretch work commenced.
	Complete System Assessment Capability	Baseline work projected to be completed per PI requirements.
	Soil sites addressed	Baseline work projected to be completed per PI requirements.
	Manage groundwater plumes per interim RODs	Baseline work projected to be completed per PI requirements; no superstretch work commenced.
Multiple	Comprehensive performance	No safety, conduct of operations, environmental or teaming issues identified per PI requirements. All baseline work projected to be completed per PI requirements.

Section A – Executive Summary

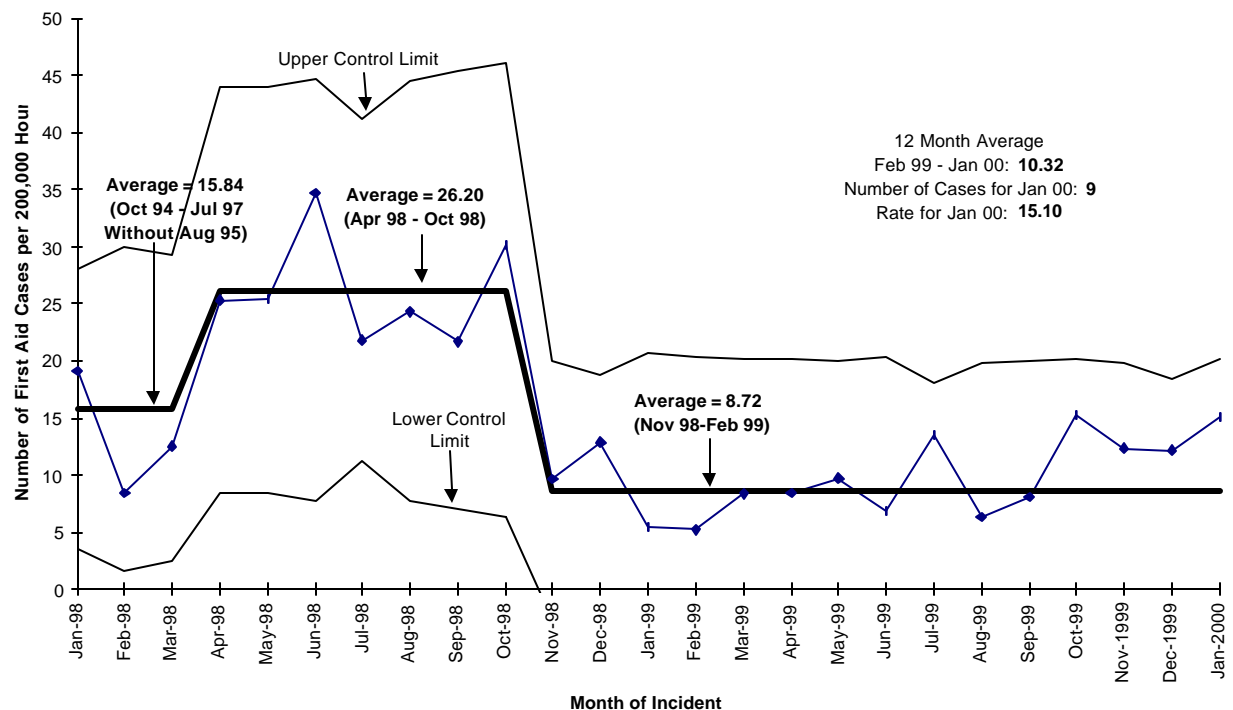
SAFETY

Type	Fiscal Year to Date	January
First Aid	35	9
OSHA Recordable	5	1
Restricted Work Day	1	1
Lost Work Day	1	0

ERC has worked approximately 525,850 hours since the last lost workday case (as of February 20).

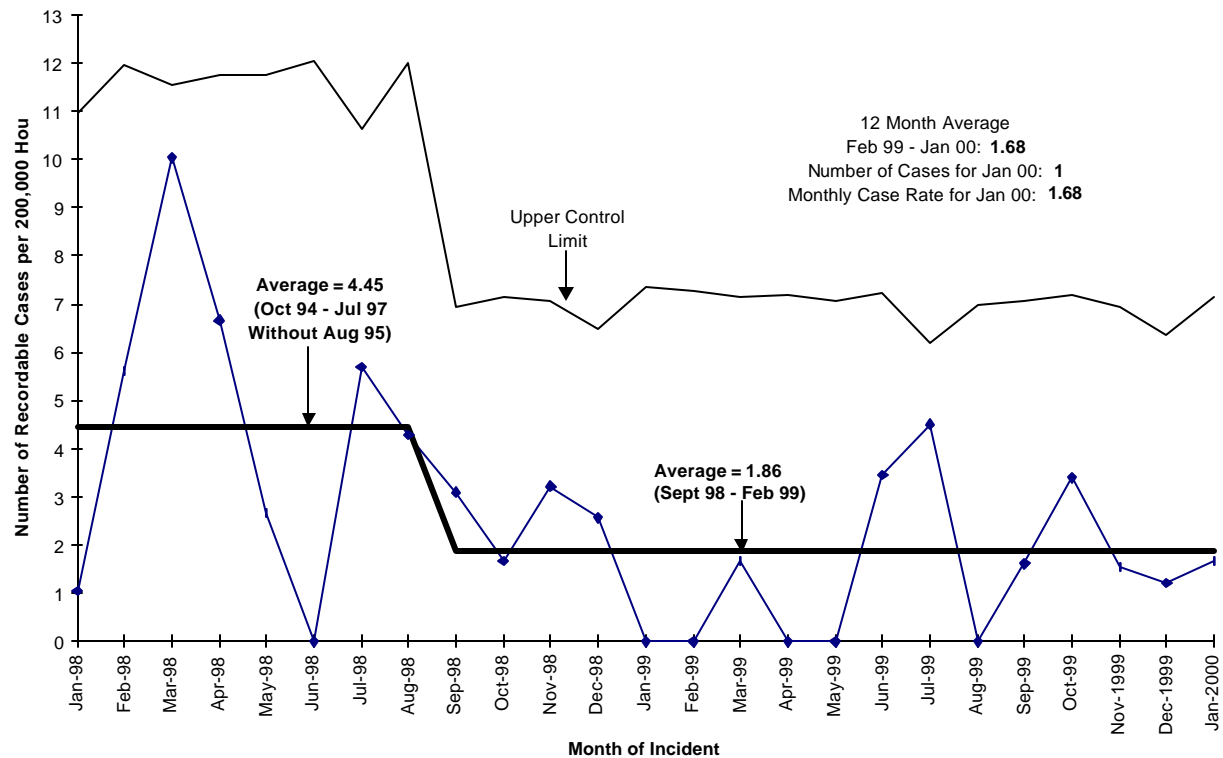
Integrated Environment, Safety, and Health Management System (ISMS) management and labor briefings proceeded in support of the Verification Review that is scheduled for March 2 through March 17. Daily ERC team awareness activities are ongoing.

ERC First Aid Case Rate Per 200,000 Hours

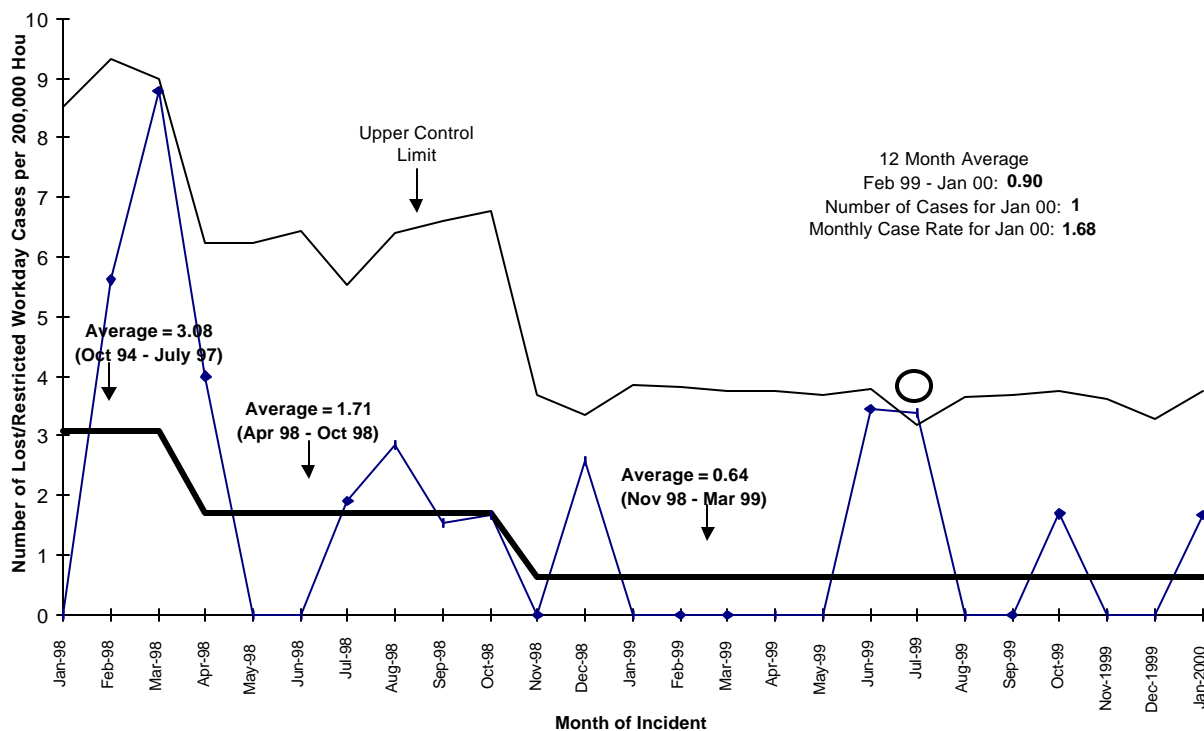


Section A – Executive Summary

ERC Recordable Case Rate Per 200,000 Hours



ERC Lost/Restricted Workday Case Rate Per 200,000 Hours



Section A – Executive Summary

OVERALL COST/SCHEDULE PERFORMANCE

Cost Variance

At the end of January, the Environmental Restoration (ER) Project had performed \$45.0M worth of work, at a cost of \$38.2M. This accounts for a favorable cost variance of \$6.8M (15.1%). The positive cost variance is attributed to site excavation savings, borehole drilling and test pit trenching costs less than planned (due to efficiencies), interim safe storage (ISS) labor costs less than planned, and FY99 year-end accrual reversals.

Schedule Variance

The ER Project is \$5.5M (-10.8%) behind schedule for January. The negative schedule variance is attributed to delays in starting 100 DR backfill, mobilization at the 100 F Area (due to plume growth at H Area), 100 H pipeline removal (due to plume growth), GW/VZ SAC Rev. 0 documentation and S&T activities, groundwater well maintenance and monitoring, 233-S Facility process hood and roof duct decontamination and decommissioning (D&D) (due to late approval of the SER), and late billings for site-wide assessments.

PERFORMANCE RISK MANAGEMENT

Issues/Early Warnings

- **Arsenic Strategy for 100 Area Remediation:** Variance sampling was completed in November 1999 for 1607-H2 and 1607-H4 Septic Drain Field waste sites. Arsenic data in the overburden and shallow zone soils exceeded remedial action goals. The average ranged from 8-11 mg/kg, with maximum readings of 30 mg/kg (Hanford goal is 6.5 mg/kg). Records indicate that no arsenic was used in processes at the 100 H Area. Historical research indicates lead arsenate was used as a pesticide in agricultural areas, predominately orchards.

Status: In discussions with the regulators, it was determined that the ER Project will adhere to cleanup levels consistent with the Washington State Administrative Code (WAC) (20 mg/kg). The 100 Area *Remedial Design/Remedial Action Work Plan* is being revised to document this strategy. It was noted during regulator discussions that large areas of agricultural land within the Hanford Site exist outside of known waste sites, and may have elevated arsenic levels. Additional remediation or administrative controls may be required.

- **100-B/C Pipelines:** FY00 and FY01 funding does not support the work on B/C pipeline remediation. The regulators have not been willing to renegotiate the *Tri-Party Agreement* milestone date of February 28, 2001.

Status: RL continues to discuss alternatives with the regulators.

Section A – Executive Summary

- **Monitoring Wells:** A high tritium value was identified in a monitoring well for the 618-11 Burial Ground.

Status: The tritium investigation is divided into two phases. Phase I consists of the initial sampling of existing wells in the area for tritium and other constituents of interest. Phase II consists of further characterization of tritium in the groundwater near the 618-11 Burial Ground.

Phase I sampling activity of 22 wells was completed on February 15. Analyses were received for tritium from all of the wells. Results from Well 699-13-3A continue to indicate tritium levels in excess of 8 million picocuries per liter (pCi/L). Results from the other wells were within expected values for the published tritium plume. The drinking water standard for tritium is 20,000 pCi/L.

Phase II characterization activities are in the planning phase. A data quality objective (DQO) session is planned for early March. Meanwhile, information is being compiled in support of the DQO regarding the burial ground, groundwater wells, groundwater chemistry history, techniques for obtaining samples, and various analytical techniques.

- **200-UP-1 and 200-ZP-2:** Regulatory agencies desire continued operation of the 200-UP-1 pump and treat system, and the 200-ZP-2 vapor extraction unit (not included in *Detailed Work Plan* [DWP]).

Status: (A) 200-UP-1: A concurrence letter to the Washington Department of Ecology (Ecology) is being drafted that will allow for a one-year shutdown to monitor contaminant rebound effects. Operation of the system is planned to continue through March 20 while technical issues are addressed. (B) 200-ZP-2: Unit is not scheduled for restart. The U.S. Environmental Protection Agency (EPA) has requested continued operation of the soil vapor extraction systems beginning April 1. Currently, RL is actively pursuing additional funds within the Hanford complex to support continued operations. If this is not attainable, RL must provide direction for work operations to continue. Upon receipt, BHI/RL management will evaluate work scope tradeoffs and submit appropriate change control. A decision (scope and funding) for continued operations is expected from RL management in early March.

- **200 Area Remedial Investigation/Feasibility Study (RI/FS):** Approximately 700 soil-contaminated sites (200 Area) grouped into 23 process-based operable units are to be characterized by 2008 and remediated by 2018. Currently, no out-year funding exists beginning in FY01. Long-term, RL must decide its budgetary position toward assessment and cleanup of the 200 Area liquid sites. The regulator position is to submit *Tri-Party Agreement* change packages for each operable unit work plan for enforceability in completing the RI through Record of Decision (ROD) based on existing *Tri-Party Agreement* milestones.

Status: RL has prepared a *Tri-Party Agreement* change package for the 200-CW-1 Operable Unit containing RI/FS milestones for FY00 only. In addition, RL is currently working on a

Section A – Executive Summary

long-term strategy for prioritizing the 200 Area assessment and remediation activities in conjunction with other site cleanup decisions.

- **FY01 ISS Funding:** The Project Priority List/Integrated Priority List (PPL/IPL) does not support funding for Reactor ISS in FY01 and FY02, which will result in program suspension and loss of potential cost savings.

Status: Need strategy to maintain critical resources and visible progress.

- **CDI Funding:** EM-30 has indicated that they will not be funding the CDI per the DWP assumption in FY00 (\$400K). EM-50 additional funding (\$700K) is also in question.

Status: Formal notification of funding changes has been received. A BCP to obtain EM-40 funding for the affected CDI scope is being prepared. EM-50 situation will continue to be closely monitored. There is no funding planned in the PPL/IPL for FY01 and FY02.

- **Budgets Do Not Support Compliance Milestones:** The President's budget of \$140.6M for FY00 (including additional ISS funding), and the budget submittal of \$142.0M for FY01, do not support completion of all of the *Tri-Party Agreement* compliance milestones.

Status: DOE, Richland Operations Office (RL) is continuing to evaluate funding priorities and options. The ER Project, as part of the DWP process, has planned FY00, FY01, and FY02 at \$135.1M (excluding ISS funding), \$163.7M, and \$164.0M, respectively.

Opportunities

- **Waste Minimization:** Existing information pertaining to the 126-F-1 Ash Pits indicates that the site was contaminated due to a previous effluent leak. Preliminary analysis shows that the south portion (approximately 163K metric tons [180K tons]) of the site may be clean, resulting in a potential cost savings. Discussions with EPA have proven favorable on this approach. ER will continue to pursue clean closure of the site.
- **River Corridor Initiative (Complete remediation of 155 square kilometers [60 square miles], including Hanford townsite):** This initiative is currently identified as a superstretch item with an approximate value of \$5.0M. High-visibility public access opportunities; also a superstretch item (bike trail, road to B Reactor, and boat ramp at Hanford townsite). A feasibility plan was completed and is in review.
- **Accelerate the ISS (four reactors for the price of three by 2003):** "To go" estimate was completed based on progress to date and supplemental funding.
- **CDI:** The CDI is accelerating the decision for the five canyon facilities by over 30 years, utilizing U Plant as a pilot project. The alternatives being considered range from full removal of the canyons to entombment options with waste disposal in and around the

Section A – Executive Summary

facilities. Potential savings of \$1B could be realized if entombment options were selected for all five facilities.

KEY INTEGRATION ACTIVITIES

- Groundwater/Vadose Zone Integration Project

BHI/Office of River Protection (ORP)/Pacific Northwest National Laboratory (PNNL)/Regulators/Public

A multi-contractor team is implementing an integrated site strategy for assessment of groundwater pathways.

UPCOMING PLANNED KEY EVENTS

- Complete remediation and backfill of 19 waste sites in the 100-BC-1 and 100-BC-2 Operable Units (*Tri-Party Agreement* Milestone M-16-08B due March 31).

SECTION B – PROJECT PERFORMANCE SUMMARY

REMEDIAL ACTION AND WASTE DISPOSAL PROJECT

The backfill contract for the 11 small sites in the 100 B/C Area was awarded the week of January 17, and field work began during the week of January 24.

Excavation of known plumes at four waste sites was completed in the 100 D Area. Closeout/verification sampling of completed D Area excavation sites also progressed during January. Excavation of the plumes on the north pipelines continued. Backfill activities were initiated at the DR high-priority, near-river waste sites.

Mobilization activities are underway for remediation of the 100 F Area soil sites. The review of the design package is 80% complete.

In January, 100 H Area remediation focused on pipeline cutting and overburden removal activities for the 1.5-meter (60-inch) diameter pipelines. Overburden removal was also completed at several waste sites. Arsenic sampling results from the 1607-H2 and 1607-H4 Septic Drain Field waste sites indicated levels exceeding ER Project goals. The source of the arsenic is believed to derive from pesticides used on orchards in the area prior to 1942. Elevated levels are expected to be up to one meter (three feet) below the surface, and may cover large areas of the Hanford Site. In discussions with the regulators, it was determined that the ER Project will adhere to cleanup levels consistent with the Washington State Administrative Code (WAC). The 100 Area *Remedial Design/Remedial Action Work Plan* is being revised to document this strategy.

Mobilization activities were initiated at the 100 N Area for remediation of the cribs. Several required support documents will be completed prior to the start of 100-NR-1 remediation. Remediation activities include decommissioning 16 wells that will interfere with remediation, rerouting pump and treat surface water lines, and designing a support structure for the water export line to 100 N that currently rests on top of the concrete panels over the 116-N-3 trench.

During January, the majority of 300 Area remediation activities were concentrated at the Landfill 1A and 1B locations. Considerable amounts of debris were unearthed at Landfill 1A, but only minimal areas of radiologically contaminated material have been discovered. The contaminated soil at Landfill 1B is more extensive than expected, and this will extend the excavation schedule by more than one month. Remediation resumed in the west embankment of the South Process Pond after a sanitary sewer line was relocated. Regulator comments were addressed to support Revision 0 of the *Focused Feasibility Study* (FFS) and *Proposed Plan* documents for the 300-FF-2 Operable Unit.

The Environmental Restoration Disposal Facility (ERDF) container transfer concrete pad has severely degraded in some places. The ERDF project team is currently testing rubber wheels (constructed from recycled earthmover tires) on two containers for durability and their effects on the concrete pad. During February, shipments totaling 52,105 metric tons (57,436 tons) of

Section B – Project Performance Summary

contaminated waste were transported to the ERDF. 245,142 metric tons (270,224 tons) have been received in FY00. To date, 1,972,118 metric tons (2,173,899 tons) of material have been received and placed in the disposal facility.

Formal *Tri-Party Agreement* change packages for three remediation milestones were signed by the regulators on February 8. These change packages extended two milestone completion dates to FY01 due to the discovery of additional plumes at the 100 and 300 Area remediation sites.

12 additional waste sites were added (via change control) to the FY00 waste site performance measures, making a total of 41 sites planned for excavation this fiscal year. Excavation of four waste sites was completed in January and one in February, for a total of nine waste sites completed through February in FY00.

FY00 assessment performance measures include a total of 168 waste site assessments. 121 assessments involve the cleanup strategy at the 300-FF-2 Operable Unit and 1100 Area sites. An additional 47 assessments were deferred from FY99, and are being incorporated in the *Proposed Plan* (leading to a ROD) for the 100 Area Burial Grounds. The submittal of the *Draft A 300-FF-2 Operable Unit FFS* and *Draft A 300-FF-2 Operable Unit Proposed Plan* to the regulators on November 22, and the draft *100 Area Burial Grounds FFS* and *Proposed Plan* on December 21, constitutes completion of the FY00 waste site assessment performance measures.

GROUNDWATER/VADOSE ZONE INTEGRATION PROJECT

An Expert Panel meeting was held on January 26-28 to review the Integration Project's progress since the panel last met in September 1999. The Expert Panel consists of eight nationally recognized technical experts. Topics that were discussed included the SAC, vadose zone and groundwater modeling, S&T, and subsurface investigations. Special sessions were open to the public, and a formal public comment period was also included.

A GW/VZ S&T characterization workshop was held to identify potential characterization technologies for inclusion in the vadose zone transport field study. Approximately 90 people were in attendance, and the outcomes were placed on the Vadose Zone Transport Studies web page (at <http://etd.pnl.gov:2080/vadose/>).

The contract for the ISRM Project well drilling was awarded in January. Well drilling commenced in mid-February in the 100 D Area. The ISRM technology involves injecting a chemical-reducing agent into an aquifer to create a chemically-altered treatment zone. Studies completed to date indicate that when the chromium-contaminated groundwater passes through the permeable chemical zone (barrier), the chromium is transformed into a harmless chemical and is immobilized.

A prioritized list of wells for FY00 installation was developed in support of the *Tri-Party Agreement* compliance milestone. The list will be presented to the regulators, as part of the DQO process, for final selection of wells to be installed. Well maintenance activities also

Section B – Project Performance Summary

proceeded in February. All eight planned wells were drilled, and casing installation was completed.

All groundwater pump and treat systems were restarted after the Y2K outage, and operated above planned 90% availability levels through February. 200-UP-1 was also placed back in service, and was approved to remain in operation until March 20 while technical issues are being discussed with the regulators. 200-UP-1 was scheduled to operate only three months in FY00. Since system inception, the five pump and treat systems have processed over 3.7 billion liters of groundwater, removing 3,826 kilograms of carbon tetrachloride, 158 kilograms of chromium, and 0.777 curies of strontium. Approximately 398 million liters of groundwater have been processed in FY00, removing approximately 422 kilograms of carbon tetrachloride, 25 kilograms of chromium, and 0.071 curies of strontium.

The public review of the Draft B *RI/FS Work Plan* for the 200-CS-1 Chemical Sewer Waste Group was completed, and no comments were received. A briefing of the work plan was presented to the Hanford Advisory Board (HAB)-ER committee.

DECOMMISSIONING PROJECTS

Good progress was made at the F and DR Reactor ISS projects during January. The F Reactor east side slab, tunnel, and exhaust plenum demolition was completed ahead of schedule. Demolition of the gas recirculation tunnel also proceeded. On January 25, recommendations for the removal of the F Reactor Fuel Storage Basin clean fill material were presented to the regulators. No major concerns or issues with the recommendations were identified. Pre-demolition activities are nearing completion, in preparation for a mid-March demolition start for the DR Reactor. Development of the EE/CA documents was initiated for the D and H Reactors. Preparation of the ASA document was also initiated for the D Reactor. Work continued on the EE/CA and the decommissioning strategy documents for the 224-B Plutonium Concentration Facility.

A pre-bid conference for the development of the *B Reactor Museum Phase II Feasibility Study* was held on January 6, with nine companies in attendance. Two bids were received on January 18. Both bids exceeded the budgeted amount, due to additional requirements that were identified and which were not in the budget estimate. A BCP was submitted on January 24, reflecting the increased workscope.

The process hood SER was approved in January for the 233-S Plutonium Concentration Facility Decommissioning Project. As soon as the path forward workscope is developed, a BCP will be submitted to rebaseline the project. While awaiting approval of the SER, other decommissioning activities progressed at the 233-S facility. The loadout hood dismantlement and decontamination workscope was completed, which allowed the room interior to be painted and radiological surveys to be conducted.

Section B – Project Performance Summary

SURVEILLANCE/MAINTENANCE AND TRANSITION PROJECTS

Surveillance and maintenance (S&M) activities proceeded in January to ensure inactive facility integrity and safety. The design package is 90% complete for the Water Treatment Plant replacement system at the N Reactor. The subcontractor was mobilized, and excavation for the new water pipe replacement was initiated. Work package and task instruction development continued for the 100 Area septic tank final disposition workscope. KE Reactor legacy waste collection and staging activities also proceeded. Waste removal from KE is approximately 25% complete. The structural inspection report was issued for the Plutonium Uranium Extraction (PUREX) facility roof. Inspection results indicate the roof is deteriorating and will require upgrades next year.

As part of the CDI effort, preparations progressed for access to the U Plant (221-U Building) cells 23 through 31. A total of 38 cells are planned to be accessed. The small material and equipment items that could be moved by hand were relocated. The larger material and equipment items depend on the availability of the 75-ton crane for further disposition. Work package and unresolved safety questions were completed to perform nondestructive evaluation of the crane drum in the canyon.

PROGRAM MANAGEMENT AND SUPPORT

The ERC Compliance and Quality Group developed ISMS tracking information documents, and placed them on the ERC ISMS web page. During the months of January and February, daily question/answer information related to ISMS subjects were distributed to ERC employees through e-mail and web page updates. ISMS principles are an important component of the ER Project's commitment for ensuring a safe and productive workplace for its employees and the public.

The ERC Safety and Health Group is participating in the preparation of the Hanford Site Chronic Beryllium Disease Prevention Program that is sponsored by the DOE. A revision is being made to the ERC beryllium procedures to comply with federal regulations.

The Opportunity Assessment Report for Waste Minimization/Pollution Prevention—FY 2000 was issued. Several opportunities were identified and recommended for implementation in support of ER Project waste minimization efforts. The remediation opportunities that were identified included the ash pit, chromium-contaminated soil (KD study), asbestos on pipelines, and recycling.

As of January, the ERC has exceeded FY00 Small Business socioeconomic contractual goals.

A listing was forwarded to RL on January 27 identifying seven ERC planned technology deployments for FY00. Of the seven deployments, five are committed and two are planned. Two technologies—the Small Diameter Geophysical Logging System and Liquid-Level Detection Technology (ultrasonics)—have already been deployed.

Section B – Project Performance Summary

The Hanford IPL development for the FY02 budget submittal was completed in February as planned, in conjunction with the development of the ER PPL. The IPL database was updated with FY02-07 narratives and supporting data as planned. The HQ Integrated Planning, Accountability, and Budgeting System (IPABS) was also updated with FY02 Project Baseline Summaries (PBS) and ER Stream Disposition Data (SDD) data.

SCHEDULE VARIANCE ANALYSIS

ER01 – 100 Area ER Remedial Action (-8.1%/\$-747K)

Cause: Negative schedule variance is attributed to late subcontractor mobilization at 100 DR backfill site, slow start for 100-HR-1 pipeline removal, and continued plume growth at 100-H Area.

Impact: None.

Corrective Action: 100 DR backfill subcontractor has accelerated production, and full schedule recovery is expected in spring. 100 H pipeline subcontractor has added additional resources and resequenced workscope. A BCP was prepared to add plume growth quantities in H Area to the FY00 workscope.

ER05 - Surveillance and Maintenance (-7.7%/\$-329K)

Cause: Negative schedule variance is attributed to development/submittal of an unplanned waste management plan for KE Reactor legacy waste removal.

Impact: Effort is approximately seven weeks behind schedule.

Corrective Action: Waste management plan was completed, and field activities commenced in late December. Additional craft resources are needed.

ER06 – ER Decontamination and Decommissioning (-10.8%/\$-585K)

Cause: Negative schedule variance is attributed to delays in 233-S loadout hood dismantlement activities caused by deteriorated glovebag removal, roof duct removal difficulties, and extended approval of SER addressing process hood activities.

Impact: None at this time.

Corrective Action: Dismantlement/decontamination activities were completed in January. Roof duct removal is scheduled to start in mid-February. The process hood SER was approved on January 19, and survey/characterization activities are expected to begin in mid-February.

Section B – Project Performance Summary

ER08 – Groundwater Management Project (-16.1%/\$-1,236K)

Cause: Negative schedule variance is attributed to PNNL delay in groundwater monitoring sample collection and analysis due to difficulties in obtaining nuclear reactor control operator (NCO) bargaining unit personnel, and pump and treat units waste shipment and regeneration due to equipment availability.

Impact: Unexpected sampling at the 618-11 burial ground will impact recovery timing. Full recovery not expected before summer.

Corrective Action: Additional NCO's were added, and a recovery schedule implemented. Waste shipments were scheduled through Fluor Hanford, Inc. (FHI) and expect full recovery in March.

ER10 – ER Program Management and Support (-22.3%/\$-1,724K)

Cause: Negative schedule variance is attributed to late billing of site-wide assessments.

Impact: None.

Corrective Action: None.

VZ01 – Site-wide GW/VZ Integration Project (-21.3%/\$-782K)

Cause: Negative schedule variance is attributed to SAC (Rev. 0) requirements development took longer than planned, which impacted initiation of Design Specification, Test Plan, and Planned Analysis development; multiple S&T issues; reduced staff availability caused logic diagram delays; and undetermined subpanel meeting schedule.

Impact: None.

Corrective Action: SAC recovery schedule was implemented with full recovery expected in February-March; additional S&T resources have been dedicated to completing the roadmap, now scheduled for April; resource has been assigned to perform logic diagram workscope; and a possibility is being analyzed to substitute an additional expert panel meeting for the subpanel meetings.

COST VARIANCE ANALYSIS

ER01 – 100 Area ER Remedial Action (22.3%/\$1,883K)

Cause: Positive cost variance is attributed to costs lower than planned for 100-DR small sites excavation and sampling, and 100-FR-1 site prep work.

Impact: Cost underrun.

Section B – Project Performance Summary

Corrective Action: Savings will be used for other environmental restoration work.

ER02 – 200 Area ER Remedial Action (39.1%/\$1,046K)

Cause: Positive cost variance is attributed to test pit trenching efficiencies and fewer samples required than originally planned, borehole drilling costs less due to utilizing RCRA groundwater borehole.

Impact: Cost underrun.

Corrective Action: Savings will be used for other environmental restoration work.

ER03 – 300 Area ER Remedial Action (47.5%/\$1,286K)

Cause: Positive cost variance is attributed to Landfill 1A/1B efficiencies, and under accrual in South Process Pond work.

Impact: Cost underrun.

Corrective Action: Savings will be used for other environmental restoration work.

ER04 – ER Waste Disposal (21.2%/\$1,487K)

Cause: Positive cost variance is attributed to FY99 accrual reversal.

Impact: None.

Corrective Action: None.

ER07 – ER Long-term Surveillance and Maintenance (200%/\$4K)

Cause: Insignificant: (BCWP: 2; ACWP: -2).

Impact: None.

Corrective Action: None.

VZ01 – Site-wide GW/VZ Integration Project (16.7%/\$484K)

Cause: Positive cost variance is attributed to efficiencies in Roadmap planning, and January accrual was not made.

Impact: None.

Corrective Action: Accrual will be incorporated in February.

Section B – Project Performance Summary

INTEGRATION WITH OTHER DOE HANFORD CONTRACTORS

- GW/VZ Integration Project

BHI/ORP/PNNL/Regulators/Public

A multi-contractor team is implementing an integrated site strategy for assessment of groundwater pathways.

- K Basin Waste Disposal

BHI/FHI

A Memorandum of Understanding has been signed between BHI/FHI for the packaging, treatment, transport, and disposal of K Basin waste to ERDF.

- 300 Area Waste Disposal

BHI/PNNL

A Letter of Instruction and work order from PNNL to BHI was signed on January 4 for the transport and disposal of waste from the 331-A Building demolition. Transportation and disposal of the estimated 304 metric tons (336 tons) of building debris is expected to completed in early March.

- 300 Area Acceleration

BHI/FHI

BHI is providing support to FHI in developing scope, schedule, and estimates for the submittal of the 300 Area cleanup acceleration Budget Change Request (BCR).